

## **Contactless Opening Systems**

**Light Barrier** as a pulse generator for attachment to the on-site substructure near the door

**Radar Motion Detector** in a particularly robust, weatherproof industrial design with an adjustable radiation field from 0 - 6 m, especially for industrial doors

**Mounting bracket** for secure and torsion-free installation of the motion detector

Alternative:

**Motion Detector** in a particularly robust, weatherproof industrial design with an adjustable radiation field of 0 - 6 m, especially for industrial doors with an integrated infrared presence detector for detecting moving and stationary objects directly in front of the door system (max. installation height: 5 m)

**Mounting Bracket** for secure and torsion-free installation of the motion detector

**Non-Contact Pulse Generator Type "clear wave"**, incl. flush-mounted box for wall mounting (construction height 20 mm), detection range adjustable from 5-40 cm

**Non-Contact Pulse Generator Type "clear wave"**, surface-mounted (construction height 20mm) Detection range adjustable from 5-40cm

**Induction Control** with evaluation device pre-installed in the control cabinet and completely wired 2-channel version with mutual blocking of two induction loops, which can be evaluated separately. With appropriate routing, the hold-open times are minimised because the door can close immediately after driving through.

Laying the induction loops including wet grinding, proper and professional casting, connection to the evaluation device in the control cabinet and functional test, up to a maximum of 20 m in length

**Radio Receiver**, 2-channel, 2.4 GHz, without transmitter, installed and wired in the control cabinet

Alternatively:

**Radio Receiver**, 2-channel, 2.4 GHz, without transmitter, incl. rod antenna for installation in steel switch cabinet, installed and wired

**Radio Remote Control** for 2.4 GHz radio control

Variant "A"	3-channel
Variant "B"	6-channel
Variant "C"	8-channel
Variant "D"	10-channel

The standard radio control is to be designed in such a way that one door can be opened at the push of a button on the transmitter. Closing takes place automatically via an adjustable timer.

### **Laser scanner "EFA-SCAN®"**

The sensor creates a three-dimensional monitored area with individually adjustable, geometric and dynamic detection areas on site. As a result, it offers maximum safety for people, transported goods and the door itself against accidents and damage. In principle, two EFA-SCAN® are required for the areas "in front" and "behind" the door in order to completely replace all previously used combinations of conventional pulse generators and spatial security devices or to significantly surpass them in terms of effectiveness. The EFA-SCAN generates two uninterrupted areas: a security area in the immediate vicinity of the door and - further away - a detection area. In this zone, the EFA-SCAN® sensor works like a state-of-the-art command device to open the door. The speed and direction of the detected objects are calculated. Reliable direction detection ensures that only objects moving directly towards the door can trigger an opening impulse. Objects moving parallel to, or away from the door are masked out, so that "accidental" opening is effectively prevented.

Supply, assemble and install (incl. electrical installation with final functional test) of:

**EFAFLEX LASER SCANNER EFA-SCAN®**, with direction-detecting detection zone and static safety zone, integrated in the door frame. Available for the door types high-speed spiral door, high-speed turbo door and high-speed turbo roller door

Alternatively:

**EFAFLEX EFA-SCAN® Laser Scanner**, with direction-detecting detection zone and static safety zone, factory-installed in a separate bollard, standard bollard height: H = 400 mm, steel parts powder-coated to RAL 1003, "signal yellow".

Alternatively:

**EFAFLEX EFA-SCAN® Laser Scanner**, with direction-detecting detection zone and static safety zone, for on-site attachment options (according to EFAFLEX specifications).

On request additionally:

Additional bollard, e.g. B. as pure collision protection, powder-coated according to RAL 1003 "signal yellow", standard bollard height H= 400 mm.